Department of Energy
Washington, DC 20585
September 28, 2001

Document Control Office (7407)
Office of Pollution Prevention and Toxics (OPPT)
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Ariel Rios Building
Washington, DC 20460

Docket Control Number OEI-100009

Dear Sir or Madam:

Re: 66 FR 43865, Public Meeting to Discuss Guidance Document for Lead and Lead Compounds: Community Right-to-Know Toxic Chemical Release Reporting

On Tuesday, August 21, 2001, the Environmental Protection Agency (EPA) published a notice in the Federal Register announcing the pending availability of a draft guidance document for lead and lead compounds, which are subject to reporting under section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and section 6607 of the Pollution Prevention Act of 1990 (PPA). In this notice, EPA announced a public meeting scheduled on September 24, 2001, to discuss a draft version of the guidance document . EPA also requested comments on the draft guidance document once it becomes available. Comments were due September 20, 2001, but in a subsequent e-mail to public meeting attendees, the due date was delayed to October 1, 2001.

Enclosed for your consideration are comments from the Department of Energy (DOE) on the *Draft Guidance for Reporting Releases and Other Waste Management Activities of Toxic Chemicals: Lead and Lead Compounds*. The comments highlight several uses of lead and lead compounds commonly found at DOE facilities that the Department believes are not adequately addressed in this draft guidance. The comments also point out potential inconsistencies between this draft lead guidance and the EPCRA Section 313 *Industry Guidance Electricity Generating Facilities*, February 2000, EPA 745-B-00-00, for determining reporting thresholds and calculating releases of lead and lead compounds as a result of fuel combustion.

The Department appreciates the opportunity to comment on the draft guidance. If you have questions on our comments, please contact Ms. Jane Powers of my staff at (202) 586-7301.

Sincerely,

Thomas T. Traceski
Director, RCRA/CERCLA Division
Office of Environmental Policy and Guidance

Enclosure

DEPARTMENT OF ENERGY

Comments on
EPA's "Draft Guidance for Reporting Releases and Other Waste Management Activities of Toxic Chemicals: Lead and Lead Compounds"
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1. Firing Ranges/Explosives - The draft lead guidance and Appendices do not provide guidance on reporting of lead releases at firing ranges. At a few Department of Energy (DOE) sites, firing ranges constitute a primary source of lead in-use. The Department requests that EPA provide clarification on a number of issues regarding firing ranges:

    a. The Department of Defense has developed a software tool, TRI-DDS, for estimating threshold quantities of metals from firing ranges. Does EPA support the use of this tool for purposes of TRI reporting? If so, the following question applies.

    b. Question 124 in the *Federal Facilities Q&A Guidance* dated May 2000 provides an AP-42 emission factor for fugitive emissions of lead from lead bullets fired. The TRI-DDS software provides different results for air emissions from lead bullets fired than the AP-42 emission factor does. Which approach would EPA recommend?

    c. In the *Federal Facilities Q&A Guidance* document, Question 124 addresses releases of lead from firing ranges. Should this Q&A be included in Appendix B of the draft lead guidance? If not, does EPA still support the guidance provided in this question?

    d. Lead bullets are typically fired into a dirt bunker at a firing range. EPA should clarify when the lead release is to be reported -- the reporting year the lead bullets are fired into the dirt bunker or the reporting year when clean-up or remediation of the firing range occurs?

2. Lead Shielding - Many DOE facilities use lead shielding around radioactive materials, mainly in the form of lead "bricks" that can be moved/relocated and reused. The draft lead guidance provides limited information on compliant reporting of lead used for shielding radioactive materials. Appendix B addresses a few issues through the question and answer format; however, DOE requests that EPA provide additional guidance on the following issues:

    a. When can the personal use exemption be applied?
    b. When can the structural component exemption be applied?
    c. When can the article exemption be applied? For the article exemption, can EPA provide guidance on how to estimate releases from lead shielding, (e.g., when moving the shielding releases lead dust).

3. Lead Soldering - Lead soldering is only addressed in Appendix B, Part 2, Question 10 of the draft lead guidance, however, this is a common activity in industry, including departmental operations. DOE requests that EPA provide additional guidance on this use of lead in the final guidance document. For example, which exemptions might apply to various applications using lead solder? Or how should emissions of lead from soldering activities be estimated?

4. Lead Compounds Produced in Closed Systems - Page 8 of the draft guidance, middle paragraph, states: *"All quantities of lead and lead compounds manufactured, processed, or otherwise used must be counted toward threshold determinations. This may include lead compounds that are generated in closed systems."* DOE requests that EPA provide additional guidance and examples of what EPA means by lead compounds generated in "closed systems"

5. Comments on Appendix C - The usefulness of Table C-1 in Appendix C would be enhanced if it included lead from ammunition/explosives (AP-42, Section 11-3), and lead electroplating (AP-42, Section 12-20). Additionally, it is also difficult to understand what each emission factor is based on (i.e., many entries are under the generic term "material", so one still needs to go to the AP guidance to find out which "material" is being discussed). DOE requests that EPA consider including a listing of the various chapters of AP-42 that address lead emissions from various industrial sources (as was done in the mercury guidance), and also consider including an electronic link to each AP-42 chapter on the web version of this guidance. This way the user would always get the most up-to-date emission factors.

6. Conflicting statements between the draft lead guidance and the EPCRA Section 313 Industry Guidance *Electricity Generating Facilities*, February 2000, EPA 745-B-00-004.

   Section 2.1.1, page 15, of the draft lead guidance states, " If you burn fuels (e.g., coal or oil) on site, lead present as an impurity in the fuel forms a lead compound that is coincidentally manufactured and subsequently released or otherwise managed as waste. If you do not know in what form lead is present in a fuel, EPA recommends in most cases *assuming elemental lead*. For combustion of fuels that contain lead, assume that lead is converted to lead compounds. In absence of any other data, EPA recommends assuming that *lead dioxide (PbO2) is formed* and use that for threshold calculations." A different section of the draft lead guidance conflicts with the elemental lead assumption. Table 4-8, page 49, footnote 2, states that "constituents are most likely metal compounds rather than elemental lead."

   The electricity guidance (page 3-10, "Manufacture of Metals and Metal Compounds During Combustion") states that in combustion of coal or oil, conversion from an elemental metal to a metal compound "…is not known to be an issue. Additionally, the Table 3-5 default values for manufacture of lead compounds are based on PbO, not PbO2.

   Another difference in the two documents is the values for lead concentration in coal. The draft lead guidance, Table 4-8, lists lead concentration values for "coal (avg.), anthracite, bituminous, subbituminous and lignite, " while the electricity guidance, Table 3-5 lists lead concentrations by coal type and State.

   DOE believes that a reporter consulting both documents will be confused and recommends that EPA make a statement in the combustion sections of the draft lead guidance on how a reporter should use the two guidance documents.

7. The draft guidance should add language that clarifies how a facility should report lead and lead compounds when both thresholds are exceeded.

   Section 2.1.1, p. 15, states that reporters should assume that PbO2 (a lead compound) is manufactured during fuel combustion. However, the example on page 63 (and the emission factors in Appendix C, Table C-1) show a calculation/factor for a stack release of elemental lead (not PbO2). This is very confusing for reporters. DOE recommends that EPA add a clear example of reporting options for reporting all releases of lead *and* lead compounds (including fly and bottom ash) to the draft lead guidance.

   Such language currently exists in the EPA's electricity guidance. Page 3-6 of that guidance gives a boxed example explaining that a facility can file one Form R that takes into account both the releases and other waste management activities of lead and lead compounds.

8. Table 3-3, page 28. The title of the first scenario might be better worded as "Lead not in qualified alloys." In the third scenario, the second sentence might be clearer if reworded as: "All lead quantities are included in the threshold determination, but there are two separate determinations: one for lead in qualified alloys (using the 10,000 and 25,000 lb threshold) and one for lead not in qualified alloys (using only the 100 lb threshold)." It doesn't make sense to use the 10,000 and 25,000 lb threshold since the 100 lb will be met first.

9. Table 4-8, page 49. This table cites lead concentrations in specific coal types (e.g., anthracite) that range from 6 ppmw to 14 ppmw, but then cites an average lead concentration for the general category of "coal" of 111 ppmw. This number should be checked as it should be somewhere in the stated range of specific coal types.

10. Table 5-3, page 61. The figures for lead concentrations in various fossil fuel ashes seem inconsistent with the lead concentrations in the fossil fuels in Table 4-8, page 49. For example, the lead concentration stated for No. 2 and No. 6 fuel oil in Table 4-8 is 0.5 and 1.0 ppmw, while the lead concentration for oil ash in Table 5-3 is 100,000 ppm. When you compare this to lead concentrations for coal in Table 4-8 (6 – 14 ppmw) and coal ash lead concentrations in Table 5-3 (1,000 to 2,100 ppm), the oil ash lead concentrations seem very high. DOE recommends that EPA verify that these numbers are accurate and reasonable estimates.